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A DOT / FAA FLIGHT OPERATIONS SAFETY PUBLICATION

FLYING TO THE OLYMPICS

ALSO:

Famous Flights: Carnes' Chariot of Fire, p.3 ■ Landing Signals, p.4
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BRIEFS

AMERICA'S FIRST. Even if you are not a "Marylander," you might want to help celebrate the bicentennial of the first manned flight in America (which took place in the "Old Line State"—see p. 3). Aviation exhibits, tethered balloon rides, a parade—which includes a descendant of the first American balloonist—and other aviation-related events are scheduled for June 16, 1984 at Bladensburg, MD near College Park Airport. The first-flight jubilee is part of Maryland's year-long 350th Anniversary commemoration. For further information call (301) 262-5505 or (301) 699-7026, or write Maryland Heritage Committee of Prince George's County, P. O. Box 596, Upper Marlboro, MD, 20772.

SNAKE EYED? What is worse than finding a dead snake in the cockpit? A moulted snakeskin, with no sign of its former occupant. Think about it. Aircraft that have sat unused until summer offer an excellent nesting place for snakes, mice, wasps, and, of course, our feathered friends. An extra careful check on preflight during early summer months could flush out unwelcome trespassers, winged or fanged. Use a flashlight to examine out-of-the-way nooks and crannies. When the nesting urge hits, no place is too small. It is tough to read your radio clearance when something is rattling underfoot.

NON-FAA TOWERS. Air traffic controllers at non-federal towers have reported incidents involving ultralight landing without authorization. FAR Part 103.17 requires prior authorization from the controlling facility before landing in an airport traffic area, but apparently some operators do not realize that airspace monitored by non-FAA controllers is also officially an airport traffic area. There are 37 of these facilities in the U.S., under local, state, or private jurisdiction. FAA literature on ultralights is being updated to emphasize this requirement at non-federal towers.

BELIEVE IT OR NOT, THE PRICE COMES down! The subscription fee for FAA GENERAL AVIATION NEWS, currently $14.00 per year, will be reduced to $13.00 starting with the next issue. The foreign price will also drop from $17.50 to $16.25. This is the first price reduction in 23 years. Subscribe now, before somebody changes his mind!

Peter Carnes' Chariot of Fire

Although Kitty Hawk has been immortalized as the site of the first powered flight, the first manned aircraft in America actually departed from the outskirts of Baltimore, MD. The pioneer airman, a lad of 13, did not disappear into the clouds, as many feared, but simply vanished into obscurity and has never been heard from since.

The year was 1784. The Revolutionary War had ended the previous autumn, and America was trying to come to terms with her new freedom.

Things were not easy. Politicians were arguing among themselves on how to pull the country out of economic chaos. The Treasury was empty, and many had lost everything during the eight long years of fighting. It was no wonder the American imagination was ready for the newest diversion from France—ballooning. Man's fascination with flight dates back to early Greek mythology and the legend of Daedalus and Icarus. Over the years experiments with all kinds of fantastic contraptions were made, but the idea of human flight was never taken seriously until the Montgolfier brothers' 1783 demonstration in Paris. All it took to soar into the clouds was a little hot air and a large, globular container.

Among the early balloon flight spectators in France were two Philadelphians, the celebrated Benjamin Franklin and an unknown, Dr. John Foulkes. Franklin immediately wrote to his scientific colleagues back home, exciting their interest. Dr. Foulkes, having just finished his medical education in Europe, found on his arrival home that Americans were thirsting for more information on ballooning. Who better to give this information than an eyewitness?

By May of 1784 Foulkes was ready to give a lecture series and a demonstration with paper balloons on how the principle worked. His balloons varied in size from six to eight feet in diameter and were fueled by burning straw. One actually reached a height of 300 feet.

The success of these demonstrations spurred other Philadelphians' imagination to greater heights—why not a manned balloon flight in America right here in her largest city. The local newspaper started a subscription to finance the venture and soon the list of 85 sponsors contained the names of the city's oldest families and most famous citizens. However, the project had barely gotten under way when word was received that an innkeeper/lawyer from Bladensburg, MD, was planning to fly his "American Aerostatick Balloon" in Philadelphia on July 4. This small town upstart who dared to challenge Philadelphia's scientific superiority was an itinerant entrepreneur named Peter Carnes.

Carnes was not scientifically inclined, but he was interested in anything that would make money. When he heard of the Montgolfier balloon ascent, he promptly read up avidly on the subject and began experimenting on his own. Soon he was able to announce plans for a balloon flight at Howard Park in Baltimore on June 24.

To catch the public's interest Carnes advertised broadly, describing his balloon as being made of various colored silks, with a diameter of 35 feet and standing 30 feet tall. Suspended beneath the gasbag was a "splendid chariot . . . fitted for the reception of two persons," with a cylindrical iron stove in easy reach so that the fire could be restoked as they ascended above the clouds.

Each day prior to the flight, Carnes announced he would give a lecture for those interested in "the great uses to which the important discovery may be applied, for the convenience and delight of human life." For the privilege of hearing his lectures and attending the ascent, it would cost you $2 for first place seating and 10 shillings each for second place seats, within the high walls of a guarded enclosure. Carnes evidently meant to make money on this deal because he warned that an armed guard ". . . will be justifiable in taking the life of any person who attempts to force his way into the field." Any surviving freeloaders would be sued.

Finally the great day arrived in Baltimore. Evidently Carnes had discovered earlier that his 234 lbs. were too much for his balloon to lift, so all the flights that day were unmanned and tethered. The crowd, which had been led to believe someone would be on board, expressed noisy disappointment but on the whole were thrilled with the show.

As Carnes was preparing for the last ascent of the day, a 13 year old boy, named Edward Warren, stood up and offered his services as a passenger. Carnes welcomed him into the chariot, heated up the stove, and uncranked his windlass.

According to newspaper reports, Warren "behaved with the steady fortitude of an old voyager" as he "soared aloof," politely acknowledging by a "significant wave of his hat" the cheers of the crowd below. The lad no doubt felt rewarded enough just leaving the ground in flight (not realizing he was the first American to fly), but as he reached the maximum height (perhaps 200') and began to descend, the crowd took up a collection so that he would be rewarded with ". . . a *solid* instead of an *airy* foundation and of a species which is ever acceptable to the residents of this *lower world*." (Rhetoric provided a noticeable portion of the hot air.)

As to what happened to our first aeronaut after this, no one seems to

(continued on back page)

LANDING SIGNALS

If a VASI is not a Vasi, what is it?

Over the past 25 years any airport operator in the United States who wanted to upgrade a runway with a visual descent path indicator supported by Federal funds had only one option: the standard VASI, or Visual Approach Slope Indicator, with which most pilots are familiar. But competitive manufacturing has recently produced such an outgrowth of new approach systems that there is no longer a foregone conclusion about what kind of aid will be installed. In fact, if the installation is to be made with FAA-administered Airport Improvement Program (AIP) funds, the airport management is not able to select a system in advance, but must accept the lowest bid tendered among those systems which have sought and received FAA approval.

This means that general aviation pilots, more and more, will be seeing something different from the familiar VASI boxes at the end of runways. Although the basic principle involved is virtually the same for all systems—use of a given colored light to indicate a given approach angle—there are enough subtle variations involved to warrant a review of the field.

The basic VASI consists of two light "bars" aligned perpendicularly to the runway, usually on the left side as seen by approaching pilot. Each bar is made up of one or more boxlike structures containing the light units. If there is only one box in each of two bars, it is called a VASI-2. If there are two boxes in two bars, it is a VASI-4, etc.

The first light bar is usually located about 500 feet upwind of the runway threshold, and the second bar is a similar distance farther upwind. The light units are aligned so that when an approaching aircraft is on the desired descent path (usually 3°), the pilot will see white light emitted from the first, or near, bar and red light from the second bar. If the aircraft is below the desired descent path (usually more than half a degree), both bars will appear red; if it is too high both will appear white.

At some airports frequented by "high-cockpit" jumbo jets, like the Boeing 747 or the C-5A, a third light bar farther upwind is installed, in order to provide an alternate descent path, usually about one-quarter of a degree higher. Because the pilot of such an airplane is sitting more than 40 feet above the extended landing gear, his actual descent path could lead to touching down short, if he uses the light bars positioned for conventional aircraft. By using the second and third bars for reference he can execute a safer approach. With this type of aid, all other traffic should use the first and second bars only. Airplanes, incidentally, are required by regulation to ". . . maintain an altitude at or above the glide slop until a lower altitude is necessary for a safe landing."

VASI's are often used in conjunction with instrument landing systems, enabling the pilot of an approaching aircraft to continue his electronically established descent path by means of visual reference. The visual range is from three to five miles by day and up to 20 miles at night, depending upon the number of light boxes employed and the meteorological conditions. For VFR approaches only, a "Simplified Abbreviated" VASI (SAVASI) with an optimum range of no more than 1.5 miles is sometimes installed.

Some pilots are taught certain mnemonic sayings in training to help them remember correct interpretation of the VASI lights—such as "Red over white, you're all right," and "Red over red, you're dead." Pilots may also learn to interpret the pinkish glow sometimes seen at the white bar of an "on course" signal as an indication that the aircraft is in the lower segment of the established flight path.

For airports which have not been able to acquire or afford VASI, some state aviation authorities have supported what is popularly known as the "Poor Man's Optical Landing Aid (POMOLA)." This system consists of three (usually unlighted) plywood panels, approximately two feet by six feet, raised on poles alongside the runway near the threshold. The panels are so positioned that when the aircraft is on glidepath the pilot sees all three panels in a single line perpendicular to the runway. If he is below glidepath he sees the center panel as being lower than the other two; if he is above, he sees the center panel as higher.

This is an extremely simple, inexpensive system which can be built by amateurs in one day, once the siting locations and panel positions have been worked out. Fluorescent paint or contrasting black and white stripes on the panels provide VFR daytime guidance up to 3/4 of a mile. Some panel systems use rudimentary lights, so that they can be seen at night.

The usefulness of such a system depends upon the accuracy with which the approach angle has been developed, the background around the panels and other local factors—not the least of which is the need to restore the painted surfaces frequently and to guard against vandalism. Perhaps the most serious disadvantage of a POMOLA, which is not approved by FAA, is the tendency of novice pilots to regard it as a precision instrument and to fly it all the way to touchdown, instead of learning to establish a normal approach angle with appropriate power and pitch inputs, using the boards as a supplementary monitor.

At present there are only two FAA-approved alternatives to the VASI system:

PAPI

The most serious competitor is a system developed in Great Britain over the past six years and recently adopted by ICAO as an international standard: the Precision Approach Path Indicator (PAPI). In the United States it is the only system now being installed at official international airports.

PAPI is based on the same principles as VASI—red and white color differentiation—but it combines all light units in a single horizontal bar, instead of stacking them vertically along the runway. This single bar contains four separate, equally spaced light units which are seen on the same geometric plane by the approaching pilot. Thus the pilot sees all the lights at the same time from the same perspective, not from several different angles. Information input is sharp and quick.

These four lights provide five pieces of information:

(1) Four white lights. Too high—more than 3.5 degrees when the selected descent angle is 3.0 degrees.

(2) Three white lights and one red. Slightly high—up to 0.2 degrees above norm.

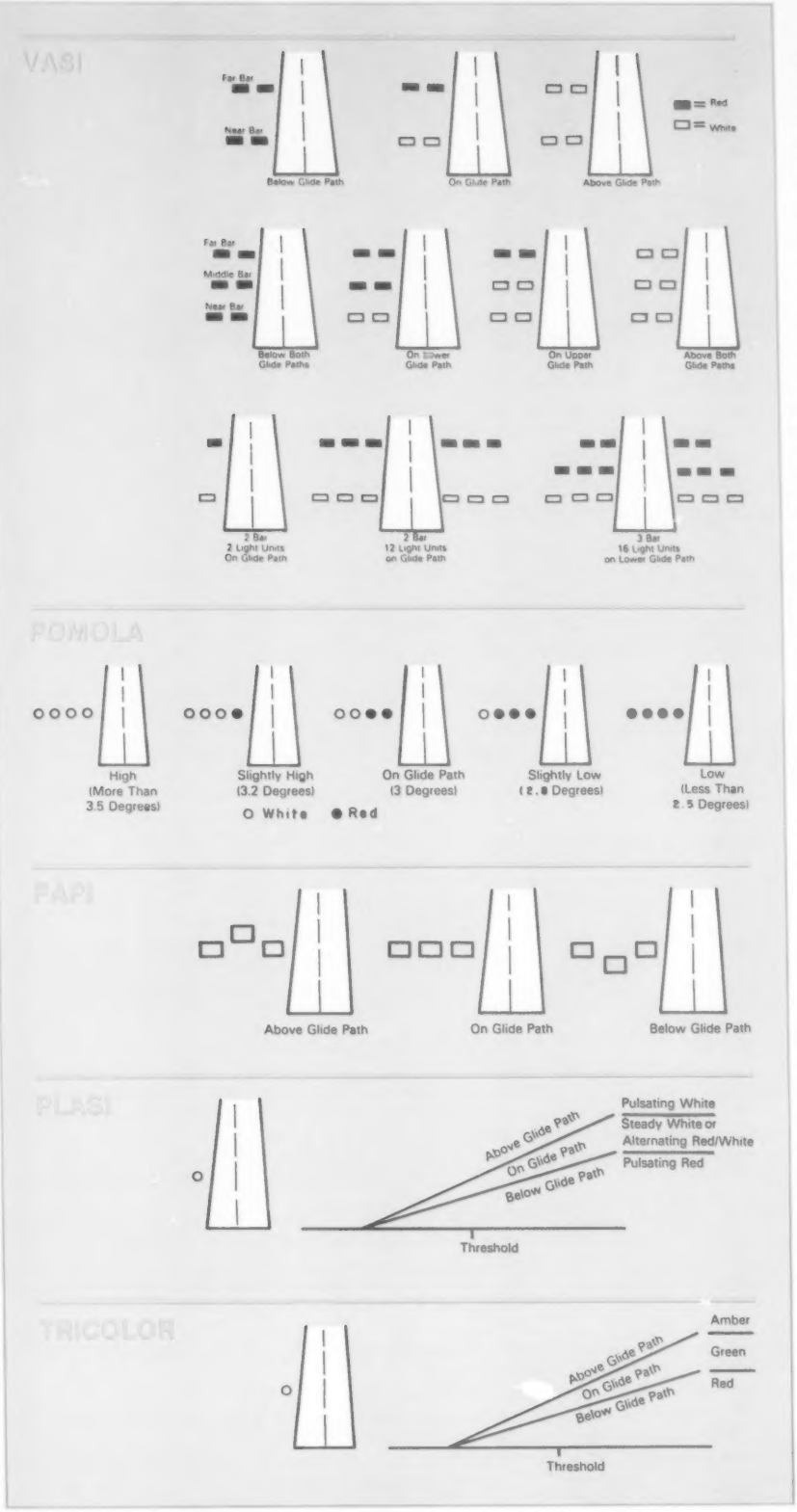
(3) Two white and two red. On glide path.

(4) One white and three red. Slightly low—down to 0.2 degrees below norm.

(5) Four red lights. Lower than 0.5 degrees below norm.

The advantages claimed for PAPI, after numerous field trails in the United States and abroad, is (1) a more precise determination of the aircraft's position with regard to the ideal glide path; (2) a quicker, easier readout since the pilot looks at only one set of lights, and (3) the capability of utilizing the lights all the way to touchdown.

Thus far the only apparent drawback for PAPI is that most pilots in this country have been brought up on VASI's and are not prepared to deal with something different. However, even those pilots who admitted to some initial confusion, at the test sites, said they adjusted quickly and were generally enthusiastic about the new type of signal.



PLASI

This is the Pulsating Light Approach Slope Indicator, which also employs a single light unit with the same two colors, red and white. However, a steady light indicates the aircraft is on the glide path, while a *pulsating* light shows that it is too high (white) or too low (red).

PLASI offers an effective guidance that is similar to VASI but operates on a reduced range. In VFR weather it is usable up to four miles in the daytime and up to 10 miles at night.

TRICOLOR

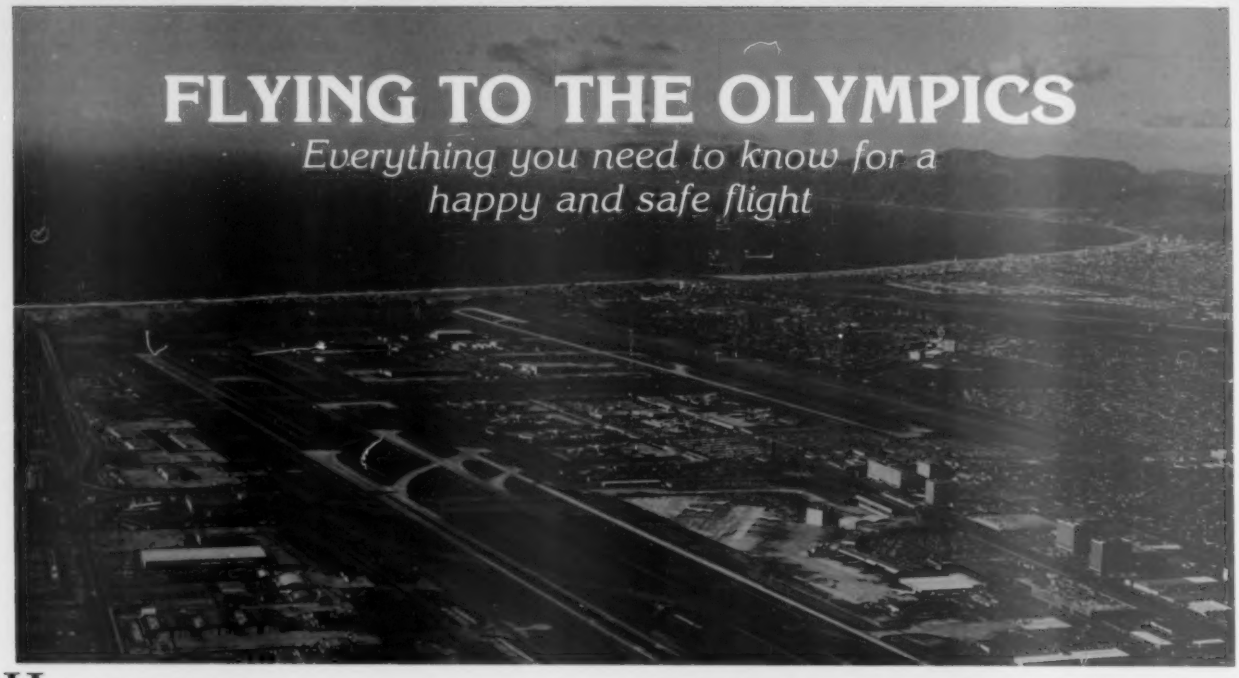
The TRICOLOR is another system which has been used in the past. It looks more like a traffic light than the French national flag since red, green, and amber (or yellow) lights are used to provide descent path guidance.

There is nothing complicated about TRICOLOR. If you see a green light you are on the glide path; red says that you are too low and yellow too high. The cost is minimal, but unfortunately so is the effective range. Daytime visibility is only one-half to one mile in VFR conditions, and it is virtually useless in any kind of weather. Nighttime range is about five miles at most. Furthermore the *Airman's Information Manual* cautions pilots that in transitioning between yellow and green the light signal may be a fuzzy mixture, and a false and confusing yellow light may be seen when moving between the red and green areas.

The de-standardization of descent path approach aids at airports is bound to cause some initial confusion, but on the other hand it is possible that manufacturing and design competition will eventually result in some extremely ingenius instrumentation at a manageable cost, so that approach guidance can be offered at many more airports than could have otherwise been foreseen. At any rate it seems likely that in time the number of acceptable systems will be stabilized, and perhaps tailored to specific local conditions.

In the meantime pilots should be prepared to cope with something new at the approach end of the runway when flying to unfamiliar airports. The *Airport/Facility Directory* will tell you whether any runway at a given airport has a standard or non-standard (NSTD) VASI, but the latter designation could mean anything from a POMOLA to a PAPI. The publication has not yet updated its runway information to include varieties of runway approach aids by name or acronym.

Until it does you might find it worth the expense to call ahead to distant airport to find out exactly what system, if any, is operating on the several runways. It is possible, although not likely, to find a different system at opposite ends of the same runway. Take time to review the system layouts shown on the next page [also shown in the *current* (March 15, 1984) *Airman's Information Manual.*] If the traffic pattern turns out to be busy on your arrival, this could save you the embarrassment of an awkward landing. When the colored lights go on, you want to know what they are telling you. ■



FLYING TO THE OLYMPICS

Everything you need to know for a happy and safe flight

Higher! Faster! Farther!

These slogans, which sound something like aircraft advertising, also embody the spirit of the Olympic Games, scheduled for Los Angeles this summer. A huge influx of visitors is expected, and accommodations have been expanded as regards terminal buildings, ramp space, living quarters, etc. Accommodating the anticipated surge in air traffic is another matter.

Southern California, with its numerous tourist attractions, is prime vacation land year in and year out, and Los Angeles International Airport is the third busiest in the country. Other nearby airports in the "top 10" are fourth place Van Nuys, sixth place John Wayne-Orange County (aka Santa Ana), and eighth place Torrance.

During most of the daylight hours LAX functions currently at full capacity. Heavy advance air carrier bookings indicate a demand for increased schedules; many who wish to fly to Los Angeles for the Summer Olympics will also be coming aboard commercial charters and general aviation aircraft. How can you cram more sardines into an already full can?

FAA projections show that an increase in the order of 25 IFR arrivals (whether air carrier or general aviation) during peak morning hours would result in delays of approximately one hour, in the air or on the ground, for all IFR operations. This would have a domino effect on normally nonpeak hours and probably extend delays throughout the day for all aircraft.

To avoid such inconvenience and to accommodate as many visiting aircraft as possible, FAA has enacted Special FAR 46, which establishes some temporary airspace, airport, and security rules for a designated "Los Angeles Olympic Area" between July 14 and August 26, 1984. The Olympic Area consists of all airspace and airports within an 80-nautical mile radius of LAX. Geographically it stretches from Bakersfield in the north nearly to San Diego in the south; from beyond San Nicholas Island in the Pacific Ocean almost to Palm Springs in the east. This includes what is popularly known as the Los Angeles Basin and most of the surrounding mountains; part of the Mojave Desert and the Pacific Ocean. Within it are located some 80 or more airports, controlled and uncontrolled, private and public, military and civilian.

SFAR 46 contains **two separate reservation systems for arriving aircraft.** These make up the "meat" of the SFAR. The "Advance Airport Reservation Service" applies to *scheduled air carriers and commercial operators* at Los Angeles International Airport, where the peak capacity will be raised to 124 IFR operations per hour on July 14. Some operations in excess of this "ceiling" will be allowed via a random lottery and slot allocation procedure. However, only those arrivals will be accepted which have a prior reservation slot.

Unscheduled arrivals will be governed by an FAA "Olympic Reservation Service," which applies to Burbank, Long Beach, Ontario, and John Wayne—Santa Ana, as well as to Los Angeles International. This service will handle mandatory advance reservations at these five airports for all unscheduled *IFR* arrivals. Unscheduled *VFR* arrivals will need a reservation and a flight plan for LAX only. (VFR helicopters are exempted from this requirement.) The "remarks" section of the flight plan should contain the reservation number assigned to the flight when the reservation is made. *Airborne* filing of flight plans is prohibited in the Olympic Area except in an emergency or when a flight is to be conducted entirely within airspace controlled by one air traffic facility.

Reservations for unscheduled arrivals will be required between *0600 and 2359 PDT* each day and will be issued on a first-come, first-served basis. They may be made no earlier than two weeks before arrival and no later than two hours beforehand. Multiple reservation requests will be accepted provided not more than three Olympic reservation airports are involved per call. *Cancellations must be called in as soon as possible.* The toll-free number for making reservations is (800) 451–6666.

Additional reservation airports may be added as needed. If this is done, the information will be included in NOTAM's, with which pilots operating in the Olympic Area will be required to be familiar.

The second major provision of SFAR 46 will be the establishment of 26 airspace restricted areas over the Olympic villages and the sites of various events. The ceilings of these restricted areas will vary but will usually be at 2,500' MSL. Excepted from the restrictions are:

- Olympic security flights
- emergency relief flights for public health and safety
- law enforcement flights
- flights operating on special FAA-designated ingress/egress routes to and from heliports
- flights operating under an authorization from FAA.

The temporary restricted areas in Southern California are:

Anaheim Convention Center	Long Beach Convention Center
Cal State Fullerton	Loyola Mary Mount College
Cal State University	Mission Viejo
CSU Dominguez Hills	Mount St. Mary's College
Coto de Caza	Occidental College
Dodger Stadium	Pepperdine College
East L.A. College	Prado
El Dorado Park	Rosebowl
Fairbanks Ranch	Santa Anita Park
Forum	UCLA
Heritage Park	UCSB
Las Casitas	USC Coliseum and Convention Center

Sites outside of Southern California include Stanford University in Palo Alto, CA and the Navy-Marine Corps Stadium in Annapolis, MD where the preliminary soccer trials will be held. See NOTAM's for details.

To aid pilots coming to Los Angeles for the Olympics, FAA has prepared a special "Pilot Information Handout for the 1984 Olympics," which will contain essential points of SFAR 46 and other airport information that may not be found in the usual sources, such as the *Airport/Facility Directory*. The airspace restricted areas will be pictorially displayed, along with other information on air traffic procedures for the area. This handout will be available free from all flight service stations, general aviation district offices, FAA's Western-Pacific Regional Office, and FAA Headquarters in Washington, DC. Addresses for the regional and headquarters offices are:

DOT/FAA
800 Independence Ave., S.W.
Washington, DC 20591
ATTN: ATT–250

FAA Western-Pacific Region
P.O. Box 92007
Worldway Postal Center
Los Angeles, CA 90009
ATTN: AWP–530

Many pilots traveling to the Olympics in their own airplanes will be flying into that area for the first time. As with a first trip anywhere, lack of familiarity with the environment can cause problems unless the pilot takes time to acquire proper charts and studies the terrain features carefully. This knowledge should be reinforced, if at all possible, by talks with other pilots who have been there and have experienced first hand some of the local idiosyncracies. It is also a good idea to telephone or write ahead to the airport of your choice to inquire about tiedown space reservations—some may require a deposit in advance.

Make sure that you have not merely one but several alternate destinations in mind. Your first or second or even third choice may be bottled up with weather or traffic or ramp problems, and if you select another at random you may end up 50 miles from where you want to be.

Geography

Approaching LAX, the southern California environs are full of geographic contradictions, including the highest mountain in the adjacent 48 states (Mt. Whitney at 14,471'), one of the largest deserts (the Mojave), and several hundred miles of seashore. Los Angeles County itself covers some 4,000 square miles and contains over 7.7 million inhabitants, mostly residing within an enormous sprawl of "bedroom suburbs." The city is located in a seashore basin surrounded by twisted mountain ranges and valleys, which are not conducive to pilotage navigation by first-time visitors. VFR checkpoints are not easy to spot, and even the airports are not always a certain means of location, since several within a small area may have similar looking multiple or parallel runways.

For example, newcomers (and some native Angelenos) have mistaken Hughes—an 8,000' private strip which formerly maintained a non-federal tower at Marina Del Rey—for Santa Monica Municipal, whose single 5,000' runway is oriented in somewhat the same direction but located three miles away. To avoid the embarrassment of landing at the wrong airport (and a lot of red tape if it turns out to be one of the numerous military installations in the vicinity) try to keep your radio navigation as sharp as possible, and your adherence to air traffic control vectors equally precise.

Los Angeles has a Terminal Control Area ringed by three Terminal Radar Service Areas (Burbank, Santa Ana, and Ontario), indicating the volume of traffic in the area. Pilots are reminded that in order to operate in a Group I TCA like LAX they must have ATC approval, at least a private pilot certificate, an operable VOR, a two-way radio, and a transponder with altitude encoding capability.

The density of traffic in the Los Angeles basin often necessitates the "stretching" out of landing patterns. It is not uncommon to have as many as 20 airplanes aligned on an eight-mile downwind leg over the city. If you are at the tailend of the line you may not be able to see the runway immediately, so you have to avoid losing track of the planes ahead and straying over to another airport or getting lost.

Remember that the traffic mix at several airports will include jumbo jets, so review your wake turbulence avoidance procedures (FAA GENERAL AVIATION NEWS, May/June 1981).

It is also an uncomfortable feeling to run low on fuel over such an enormous expanse of tightly urbanized countryside—and as for making an emergency landing on the freeways, forget it. They are usually bumper to bumper. And no matter what problems you are having with navigation, you cannot afford to neglect a constant traffic scan. Even under positive control in the TCA, there could be so many airplanes buzzing around that without alert pilot assistance in maintaining safe separation, irksome delays could occur. Keep an eye out for low-level helicopter "shuttle" activity, which is expected to be very busy, and be mindful of any military demonstration flights scheduled for the Olympic Area.

Weather

Summertime often brings long periods of calm or light winds to the area, which makes for smooth flying at altitude but also promotes

OLYMPIC RESTRICTIONS ON UNSCHEDULED FLIGHTS

	IFR	VFR*	
Arrivals at:	*Advance Reservation*	*Advance Reservations*	*Flight Plan*
LAX	Yes, 2 weeks to 2 hours ahead	Yes, 2 weeks to 2 hours ahead	Yes
BUR LGB ONT SNA	Yes, as above	No	No
Other So. California Airports	No	No	No
Airspace Restrictions Yes, over designated Olympic sites			

*Does not include VFR helicopter operations.

temperature inversions and uncertain visibility. Early in the morning below 1,000' conditions may be IFR but CLEAR/20 above the inversion layer. This usually burns off by about 10 a.m. although a thin haze may be left behind. In the late afternoon with the sun within 30° of the horizon, the return of these same hazy conditions can create a glare that obscures forward visibility. Often a pilot can only see straight down, which is not good for relying on ground reference.

Along the coast sea fog can form and move inland on a moment's notice, especially when land and water temperatures differ widely. A few minutes after reporting CLEAR/20, an airport may issue a "special" indicating zero-zero conditions. That means a quick change in plans to another airport further inland.

During the summer there are not many thunderstorms in the L.A. basin; generally they work themselves out over the mountains. But pilots may have to contend with turbulence from these storms or from convective air movement over a highly populated area. When approaching from the east, LAX air traffic is "funnelled" through several mountain passes, and pilots should be aware that these passes can often go IFR quickly. Turbulence in passes can also be rough on small airplanes. Climbing as much as air traffic control and aircraft performance will allow usually helps. Of particular note is the turbulence in Banning Pass near Beaumont, CA which leads from Palm Springs to Los Angeles. When winds are from the northeast, expect turbulence over the mountains and in the passes to worsen. It is always a good idea to check with flight service before flying through mountains, either in person or en route via Flight Watch—to check for PIREP's about turbulence, or visibility.

The dense smog and haze for which Los Angeles is celebrated can present serious problems to flight in the summer, particularly within the basin itself. It is not unusual, for example, to have a flight instructor depart Santa Monica IFR and fly his student to a nearby practice area with good VFR visibility. If you are not qualified to make an instrument approach, keep in mind an alternate destination outside the smog area where you can wait for the midday sun to burn it off—hopefully.

Radio Transmissions

As you might expect, in this busy air traffic environment, the radio chatter is practically constant, and a hesitant pilot tends to get lost in the shuffle. Visiting pilots are encouraged to be *assertive* (but polite) in obtaining air traffic control's attention. Be sure to have all necessary information at hand when transmitting, and use standard, concise radio phrasing to cut down on the transmitting time.

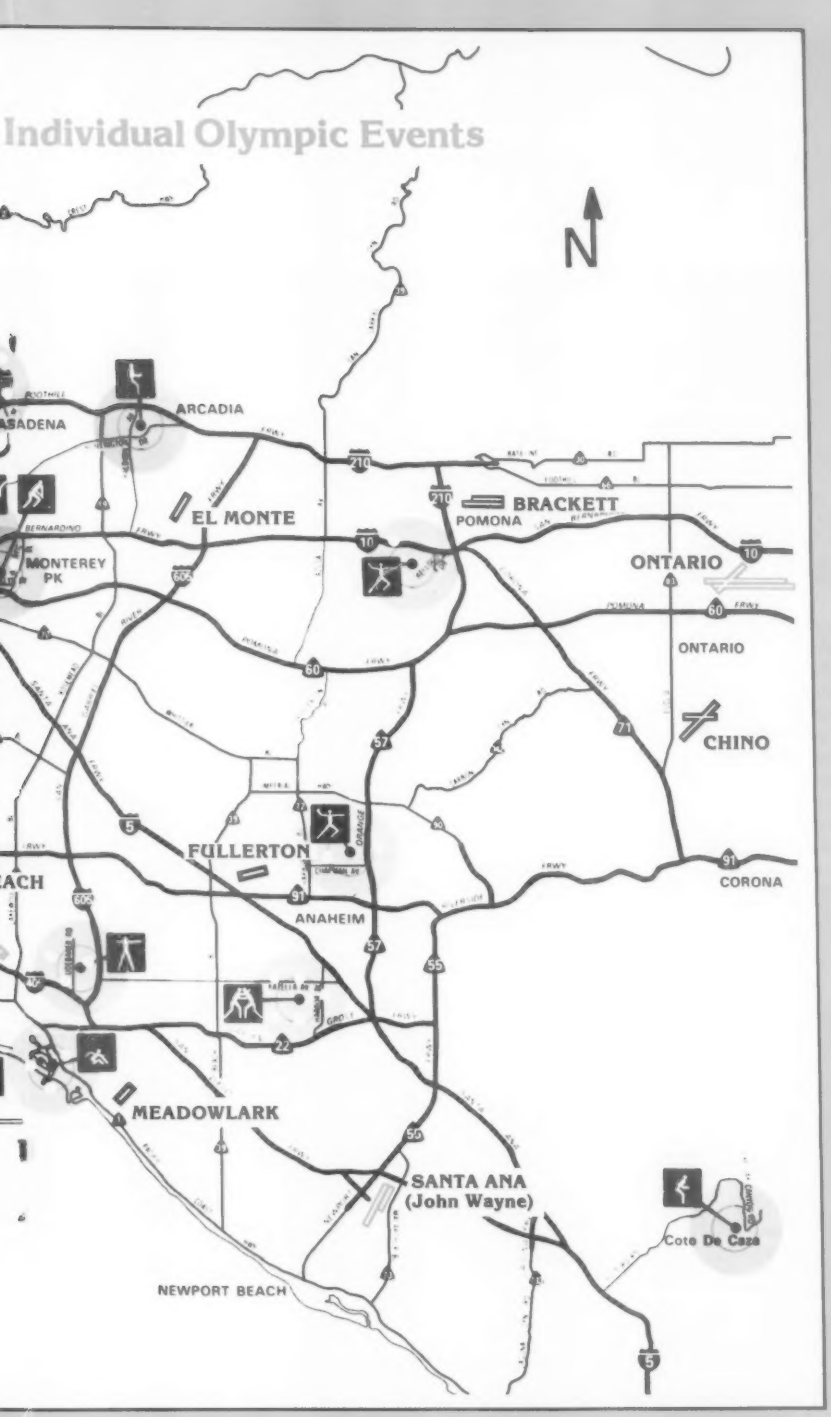
Make sure that you have access in the cockpit to a handy display of the local tower and UNICOM frequencies, and that you are in contact with the facility at your intended airport. Some of the airports—and their radio frequencies—are so close together that unless you are very attentive you might pick up transmissions intended for others and land on a runway that is already occupied.

A special edition of the Los Angeles Terminal Area Chart and a special VFR helicopter aeronautical chart for the area will be available for the games. Both can be purchased at regular chart distributors or by writing to the National Ocean Service, NOAA Distribution Branch, N/CG33, Riverdale, MD, 20737; (301) 436–6990. Also included on the Los Angeles TCA chart is the VFR Flyways Planning Chart, depicting the various VFR corridors criss-crossing the area. Pilots should remember that VFR corridors will have no air traffic services *but* local conditions may require navigation by instruments. Consult NOTAM's and the *Airport/Facility Directory* for the latest pertinent information and frequency changes.

The accompanying chart will show you which of the airports are closest to the activities you are interested in attending. Also, the Los Angeles Chamber of Commerce has prepared a free handout on general aviation facilities in the area. Send a stamped, self-addressed envelope to "General Aviation Olympic Information," P.O. Box 5050, Irvine, CA, 92716–5050.

If you can park your aircraft nearby, great; if not, get as close as you can and find some other means of travelling to the games' sites. After all, the Olympics are just that: *games*.

Fly safe, and have fun. ■



Archery	El Dorado Park
Athletics	L.A. Memorial Coliseum
Baseball	Dodger Stadium
Basketball	The Forum
Boxing	L.A. Memorial Sports Arena
Canoeing	Lake Casitas
Cycling	CSU Dominguez Hills
Equestrian	Santa Anita Park
Fencing	L.B. Convention Center
Football	Rose Bowl
Gymnastics	Pauley Pavilion, UCLA
Handball	CSU Fullerton CSPU Pomona
Hockey	East Los Angeles College
Judo	CSU Los Angeles
Modern Pentathlon	Coto De Caza
Rowing	Lake Casitas
Shooting	To Be Determined
Swimming	Univ. of Southern California
Water Polo	Pepperdine University
Tennis	To Be Determined
Volleyball	Long Beach Arena
Weightlifting	Loyola Marymount Univ.
Wrestling	Anaheim Convention Center
Yachting	Long Beach Marina

A concerned reader writes about. . .

Dear Editor,

As a writer in the aviation industry, I share your often expressed concern over the many needless accidents we hear of, especially when pilots go out and fight the weather for no good reason and get themselves killed. But I recently had an experience, which I'd like to share with you, that made me wonder about my own logical judgment.

You remember that late winter storm we had in Washington back in March, with thunder and lightning mixed with snow, hail and high winds? I was flying home commercial from Houston that evening, and sure enough Dulles shut down just as we were starting our descent. We diverted to Newark.

The flight up to New Jersey was pretty rough, as we were in clouds much of the time with lightning flashing all around, and all kinds of turbulence. I've flown enough to feel sure the crew knew what they were doing, but I could see the guy next to me was clutching the armrest so tight that his knuckles were bonewhite by the time they finally put it on the ground—which was blanketed with snow. It was about 8 p.m.

In the terminal the carrier's agent told us that as soon as Dulles opened and we got clearance the flight would continue—within an hour, most likely. (Groans all around, a few weak cheers.) Those of us who wished to leave the flight, the agent said, could do so now. We would be assisted in finding lodging, and could continue in the morning.

About a dozen people picked up their hand bags and filed out of the boarding area. After traveling all day from Houston, I was bushed, so I started to join them. But then I wavered, and finally I stopped at a phone booth to call my wife. I had an image of her and the little one worriedly pressing their noses against the living room window pane, waiting for Daddy to come home.

Actually they were upstairs in the big bed, watching TV and eating popcorn. When I told them where I was my wife said, "Thank God. Washington's a mess. The roads are choked with commuters, everything's at a standstill. The Dulles access road is closed, I thought you were stuck there. Where are you going to stay?"

When I told her about the flight going back to Washington later in the evening she sounded incredulous. "Why? We're fine. The house is bolted up. The dog's on guard, and Sara doesn't even have school tomorrow. Get yourself a luxury hotel, a warm bath, and a long drink. We'll see you whenever. There's nothing pressing."

She was right, of course. My expenses on this trip were paid for by a client, so I would not be a penny out of pocket. As a freelance writer I could set my own timetable, and I had no pressing appointments in the morning. Why push it? I was reaching for a hotel courtesy phone when I heard our flight to Dulles being announced. For some reason I still can't explain, I suddenly found myself in line with the other passengers, marching down the ramp.

The climb out from Newark through the clouds was a little rougher than the arrival. Snow pelted the windows, and some people worried about ice on the wings. Infants squalled so loud we couldn't understand the reports from the cockpit coming over the loudspeaker. I had full confidence in the airline, but like everyone else I couldn't help feeling uneasy. Tired as I was, what was I doing there anyway?

All I could think of was that my luggage was on board, and if I didn't accompany it to the airport God knows where it would wind up. Wherever my luggage would go, there also would go I. Terrific.

We got back without incident to Dulles, where the storm was subsiding. However, as the flight attendant reminded us during our departure, "Now the really dangerous part of your journey begins. Take care on the road!"

All too true. Although the Dulles road was open now, it was bumper to bumper with cars sliding and slipping on ice and mush, stalling and getting stuck, banged up and abandoned. Bleary-eyed drivers hunched over the wheel, squinting through the arc of our windshield wipers, fighting for every inch of progress.

The Beltway was even worse, but there was no avoiding it. In three hours I traveled less than 10 miles and was down to a quarter tank; it was nearly full, luckily, when I started.

I got home after midnight. I tried to let myself in quietly but the dog barked and my wife came downstairs. At first I don't think she recognized me. Then she said, "My God, what happened? You look terrible. Why did you come?"

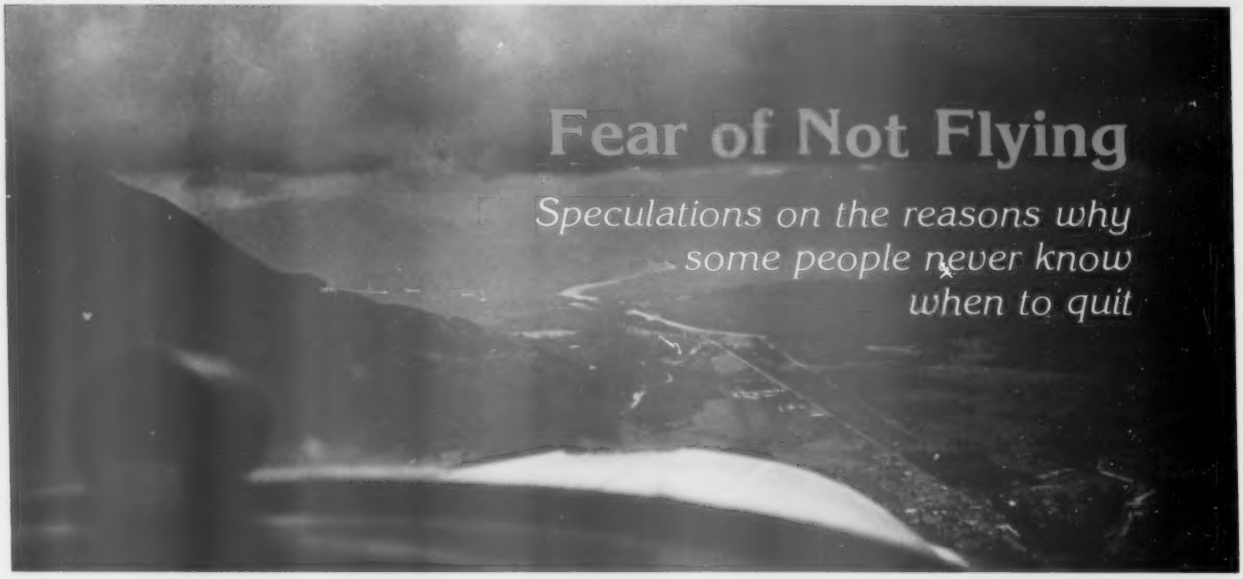
I started to tell her about the luggage, but then I remembered she had packed and knew I had a rule against carrying anything of value in the hold. What to say? After my five hour ordeal en route I had imagined I would be greeted like a homecoming hero, but instead I felt like an idiot. Why had I come back?

I stayed in bed two days wrestling with the question. All I could come up with is that I am a self-disciplined person; I set my own work schedules and I have the will power to carry them out. It's the only way I know of keeping the articles going out and the cash coming in. Failing to stay on schedule must have seemed somehow threatening to me—even more threatening than the violence of the storm, in which several persons died.

I talked about it with some friends who fly a lot on business often in private aircraft. They admitted that occasionally they make an unnecessary flight in bad weather to avoid giving a client the impression they are anything but superconfident operators. I know that taking risks (with venture capital) is part of their way of life, but risking their necks to make an impression seems like pushing up the stakes pretty high.

I wonder if "fear of not flying" is a disease that hits us as we get older. What do you think?

Peter Bachman



Fear of Not Flying

Speculations on the reasons why some people never know when to quit

There are no certain answers to the question raised in the letter on the opposite page, but it may be more than a coincidence that the writer fits the profile developed in a recent FAA staff study on the characteristics of accident prone airmen. Of some 23,000 accidents occurring over a six year period, 1976 through 1981, roughly one in four were pilot-induced. The most common **fatal** accident cause or factor was continued flight into known adverse weather, and the most likely airman victim was a businessman or professional, between 40 and 49, with less than 350 hours, and no instrument rating.

Something else they all shared in common was the *absence of any motive worthy of the risk undertaken.* Virtually all of the pilot victims were in the prime of life and in good health, with a flourishing business or career, usually a family, friends—and no apparent pressure. A typical accident, taken from the files of the National Transportation Safety Board, involved a 40 year old dentist/businessman from east central Alabama who owned a Piper *Cherokee.*

He had been flying as a private pilot for just over one year, with no instrument rating; his total time as 193.5 hours, according to the Safety Board report. On August 8, 1981, the pilot made a flight of 120 miles to Valdosta, GA., accompanied by his wife and two friends. He had afternoon and dinner business meetings to attend, but planned to fly home later that same evening.

He was busier than he had expected, and was not able to reach the airport and obtain a weather briefing until shortly after midnight. He was advised that the weather en route was "occasionally marginal VFR," and caution should be exercised. Another weather update was expected momentarily, but the pilot declined to wait, asking that the report be given him as he was taxiing out. The updated advisory informed him that VFR was not recommended along his route due to deteriorating conditions. Nevertheless the pilot took off, stating that he would land en route if unable to continue VFR.

At 1:12 a.m. the Jacksonville (FLA) air traffic control center established radar contact with the *Cherokee* pilot who was concerned about lowering cloud ceilings ". . . I sure appreciate you fellows looking after me. I. . . don't have that many hours and I've got too many things I haven't done yet. I don't want to take any chances, I'd rather set it down . . ."

A few minutes later the pilot advised that he had entered clouds over Camilla (GA) and intended to " . . .drop below it. . .do a one eighty and drop below the clouds." He was advised to watch his heading carefully. At 1:14 he reported "My heading is uh. . .uh. . ." Shortly afterwards the aircraft impacted a cornfield near Camilla, scattering wreckage over several acres. All four persons on board perished.

The usual thorough investigation was carried out by the Safety Board, but no reason for the crash was found other than pilot error. Nor was any reason found for the pilot's decision to return home that night, other than his having told his children he would do so. But given his late departure there is no way he could have reached his home in Alabama much before dawn. Waiting for daylight might have made all the difference between a safe family reunion and a family tragedy.

At Mankato Airport in central Minnesota a 46-year old businessman signed out a club *Commanche* for a weekend flight to Duluth, over the weekend of October 30, 1981. He planned to leave work early on Friday and fly his wife and two daughters to visit friends and attend a christening that would take place the next morning. His logbook showed 350 hours and no instrument rating.

When he checked with Minneapolis FSS that afternoon he learned that IFR conditions were forecast for the northern two-thirds of the state. Duluth, about 200 miles north of Mankato, was expected to be marginally VFR: 2,500 overcast, visibility five miles and hazy, chance of 1,000 feet overcast and light rain showers. After 7 or 8 p.m. conditions were expected to be IFR, with reduced visibility, rain, fog and occasional 1,000 feet overcast. VFR definitely not advised after 7 p.m.

The pilot was cautioned to call again before departing, but did not do so. Apparently he took off at 6:30 that evening, hoping to arrive at Duluth before conditions worsened. An hour after departure the *Commanche* was over heavily wooded lake country with a 500 foot overcast. The area was virtually uninhabited, with no visible lights for miles.

The area was so thickly wooded that when the wreckage was sighted the next morning, a helicopter could not land until after a chainsaw team had been dropped in to cut out a clearing. There were no survivors. The aircraft had struck the trees in near level flight at cruise speed. Investigators for the Safety Board believed that the pilot had became disoriented when he was unable to establish ground reference. He had tried to beat the weather to Duluth, only 20 miles away, and lost.

Is there some kind of confidence crisis at midlife which some of us would rather not confront—so instead we develop a fear of not flying?

Could be. ■

Moored vs. Tethered Balloons

More than cordage is involved in the distinction

What is in a name? Words are meaningful descriptions—usually. Consider the term "tethered balloon" as distinguished from "moored balloon." What exactly is the difference, or is there any? Webster speaks of a tether as a restraint placed upon an animal or other living creature, whereas a mooring line is what holds a vessel or similar object firmly in place. This is apparently not of much help toward understanding the pertinent FAA regulations, as evidenced by the misunderstandings and occasional misadventures which have occurred with improperly restrained balloons.

For example, recently in Georgia, a hot air balloon was used during a ceremony dedicating a pavillion to a well-known balloonist and public-spirited citizen. The balloon's airworthiness certificate had expired, so instead of being free flown it was tethered to a truck and towed over the crowd, while two men in the gondola sprayed the onlookers with champagne. Suddenly the balloon began to rise, and the two occupants realized that the tether line had broken. Eventually a descent was initiated and one of the men, who had taken some student pilot training, threw out a drag line to slow down the movement over the ground. The lines caught in some trees with an abrupt arresting force that snapped the support cables and allowed the gondola to plummet 200 feet to the earth. Both men suffered serious injuries.

The National Transportation Safety Board investigation listed as a probable cause, "unqualified person operated the balloon." However, from FAA's point of view the entire operation was illegal and hazardous from start to finish, because the balloon was in a non-airworthy condition and should not have been flown, much less by an uncertificated crew. *Would it have been less illegal if this balloon had been securely "moored" while the champagne spraying took place?* Not necessarily; a balloon that is a registered aircraft should normally not be moored, because the design standards are for the loads imposed for maneuvering in free flight, rather than moored operation.

FAA regards any balloon which is designed for carrying persons as an aircraft, and as such it must be certificated and operated in accordance with the applicable rules for aircraft. Such a passenger carrying balloon is considered *tethered* when it is inflated and held to the ground, in whatever manner. A *moored* balloon (for which there are no prescribed airworthiness standards because passenger carrying was not intended) is essentially any lighter-than-air object operated under FAR Part 101. Such a balloon must be restrained with mooring lines to hold it stationary in the intended location.

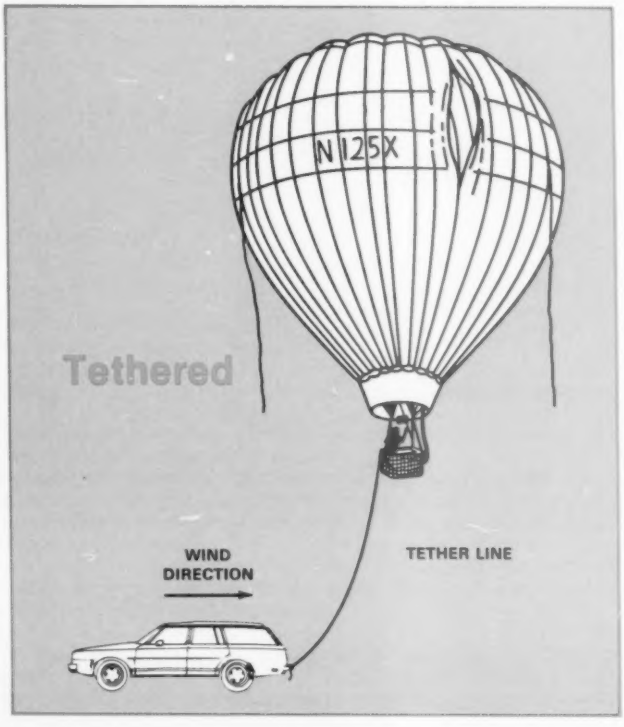
To be operated as an aircraft, a tethered balloon must be registered with FAA. It must also be constructed, certificated, maintained, and operated in accordance with various Federal Aviation Regulations (Parts 43, 61, and 91). Only a certificated and properly rated pilot may operate such aircraft, and said pilot must always be on board when passengers are carried—even when on a tether. If the passengers are carried for pay, the pilot must have a commercial certificate. The pilot is responsible at all times for the safety of persons on board, as well as for the safety of other aircraft and persons on the ground below.

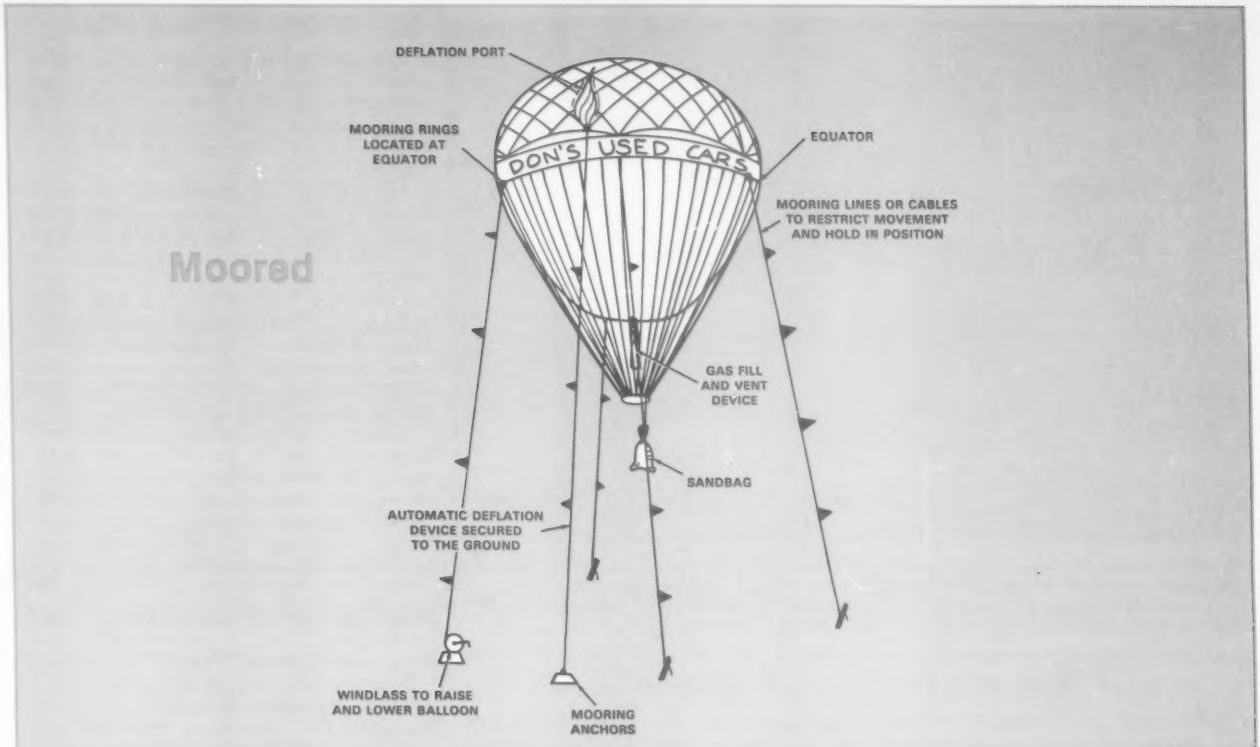
Incidentally, flight experience may be logged in a tethered balloon, by a pilot or student, for the actual time that the movements of the balloon are not fully influenced by the tether—i.e., when the pilot is controlling ascent, descent, and neutral buoyancy by means of hot air input, venting, off-weighting, etc.

Any balloon not designated to carry people is not regarded by FAA as an aircraft and is regulated (under Part 101) only insofar as it might become a hazard or obstruction to flight. It must be at least six feet in diameter (or have a gas capacity of more than 115 cubic feet); must be flown no higher than 500 feet above the ground and no less than 500 feet below the base of any cloud; must have distinguishing pennants or lights if above 150 feet AGL; must be flown no closer than five miles from any airport; and must not be flown when the visibility is less than three miles. To prevent runaway accidents, an automatic deflation device must be attached so that it will activate if the mooring lines fail. This device must function independently from any crew or other human input.

The accompanying illustrations and tabular comparisons should help prevent future misunderstandings about restrained balloon operations. If you still have any doubts, consult your local FAA General Aviation or Flight Standards District Office before setting out your lines.

You might have a bear by the tail. ■




Moored
DEFLATION PORT
MOORING RINGS LOCATED AT EQUATOR
DON'S USED CARS
EQUATOR
MOORING LINES OR CABLES TO RESTRICT MOVEMENT AND HOLD IN POSITION
GAS FILL AND VENT DEVICE
SANDBAG
AUTOMATIC DEFLATION DEVICE SECURED TO THE GROUND
WINDLASS TO RAISE AND LOWER BALLOON
MOORING ANCHORS

COMPARATIVE BALLOON REGULATIONS

	Tethered (FAR Parts 43, 61, & 91)	**Moored** (FAR Part 101)
Occupants	Passengers may be carried with a qualified pilot on board and in control.	Passenger carrying is not intended.
Certification	Must have airworthiness certificate and be FAA registered. Pilots must have FAA certificate.	No certification required
Lift agent	Usually hot air, but may be any lighter-than-air gas.	Usually gas
Vertical control	Usually hot air burners, but may use weights, valving, etc.	Windlass or manual adjustment of ropes
How held in place	One or more ropes or cables attached to any weighted object or fastened to ground anchors.	Restraining cables deployed in such a fashion as to restrict horizontal movement nearly to zero.
Protection against inadvertent release	Pilot responsibility	Automatic deflation device
Size	Not specified	Diameter at least 6′ or gas capacity of 115 cu. ft.
Altitude flown	Above 150′ AGL must be marked by pennants, streamers, or lights (similar to requirements in FAR Part 101.17)	Not above 500′ AGL. If above 150′ AGL must be marked by pennants, streamers, or lights, as per FAR Part 101.17
Weather minimums	As per FAR Part 91.105	At least 500′ from cloud base, with 3 miles visibility
Near airports	Must comply with applicable sections of FAR Part 91. Good operating practices would require contact with ATC at tower-controlled airports.	Not allowed within 5 miles, except under the provisions of a waiver.
Responsible person	Pilot	Operator

FLAME OUT. Pilots concerned about the inconvenience and additional weight of carrying conventional portable fire extinguishers on board their aircraft may have a "less weighty" option. Handheld Halon 1211 fire extinguishers that weigh as little as one pound or less and which can easily be carried and stored on board an airplane are now available. Halon smothers fire rapidly, evaporates quickly, and does not leave a residue or seep into sensitive avionics.

FIRST HELICOPTER APPROVED FOR "MAXIMUM" ICING

FAA certification of an Aerospatiale *Super Puma* helicopter last month for operating into known icing conditions means that rescue missions, oil rig transportation, and other flights almost entirely dependent on rotorcraft will be able to take place in weather that would have previously grounded them.

Until recently no helicopters have been approved by the FAA for operating in the continuous and intermittent "maximum icing" conditions described in FAR Part 29. The ice protection system was certified after considerable development and testing by Aerospatiale, a French manufacturer, with the cooperation of FAA.

Preliminary tests between 1976 and 1980 included 1,000 hours of simulated icing and 94 hours of natural icing conditions. In 1981–1983 the system was further tested on an Aerospatiale *Super Puma* for an additional 500 hours, 52 in natural icing. (The first and so far only helicopter certificated by FAA for flight into known icing conditions, the *Super Puma* is a twin-turbine, medium-range, 22-passenger helicopter capable of 173 mph fully loaded.)

The icing protection system consists of:

- an OAT thermometer
- an ice detector
- automatic activation and monitoring assembly
- an extra alternator to power the system
- de-iced main rotor blades
- anti-iced tail rotor blades
- de-iced horizontal stabilizer

Along its leading edge and as part of the top and bottom surface of each main rotor blade, there is a de-icing mat. Imbedded in the mat are five heating strips which are activated automatically by a monitor, which detects ice or the outside air temperature range that is conducive to icing. A timer keeps the strips "on" for as long as the monitor senses actual or potential icing. Any ice build-up is loosened by the heat and shed by the rotation of the rotor blades.

Each tail rotor blade has three continuously operating heating strips. The horizontal stabilizer and slat are de-iced by inflatable boots activated by engine bleed air and controlled by the monitoring system. The 1,662 hp engines are protected from hail and ice shed from the rotors and airframe by screens.

MORE PLANES CAN USE AUTOGAS

Owners of Aeronca *Champion* and Piper J and L series models powered by Continental engines are now eligible to use unleaded automobile fuel instead of Avgas under the latest supplemental type certificates issued to the Experimental Aircraft Association. Bellanca and the –8 series of Luscombe aircraft are also covered by other recently issued supplemental type certificates.

EAA is now conducting a 500–hour test on a Cessna 172 for future autogas use and expects to test a *Cherokee*,a *Bonanza*, and an *Ercoupe* later this spring.

For information on how to purchase STC rights for these model aircraft, contact EAA, Auto Fuel STC's, P. O. Box 229, Hales Corner, WI, 53130.

REST SCHEDULE FOR FLIGHT CREWS

FAA has proposed simplifying the FAR's pertaining to rest periods for airline crews, including commuters. The proposed change would establish a "sliding scale" of guaranteed rest hours based upon the duration of flight.

For example, on domestic air carriers, crewmembers would receive at least nine hours of rest after eight or fewer hours of flight; 10 hours' rest after eight to nine hours of flight; and 11 hours' rest for nine or more hours of flight. Currently the rules do not have a provision for rest periods after eight or fewer hours of flight, and this is believed to be a cause of pilot fatigue after short turnarounds. Rules which limit total flight time in a week, month, and year would remain.

Commuter air crews would be included in a similar sliding scale. Part 91 (general aviation) pilots are not subject to any sort of rest period requirement, except those that are self-imposed. However, the Federal Air Surgeon's Office recommends that general aviation pilots voluntarily observe similar limitations.

LATEST AIRMAN PUBLICATIONS

Evacuation Demonstration

Operators who wish guidance on how to comply with airworthiness and operational regulations for emergency evacuation of small airplanes (10 or more passengers) should consult AC 20–118, "Emergency Evacuation Demonstration from Small Airplanes." Free from DOT Distribution, M–494.3, Washington DC, 20590.

Sensible Tie-Downs

FAA has updated AC 20–35C, "Tiedown Sense." Pilots and airport operators will receive guidance on anchoring tiedowns for a variety of surfaces, types of rope to use, proper knots, and other useful tiedown information. Information on seasons when high winds can be expected is included and extra tiedown precautions are described. Free from DOT Distribution.

Planning Weather

The first annual edition of FAA's "Aviation Weather System Plan" outlines the programs FAA is pursuing in order to meet the ever-increasing requirements for timely and accurate weather information. The plan will be revised and updated annually, based upon input and comment from the aviation community. The 230-page document costs $7.00 from Superintendent of Documents, U.S. Government Printing Office, Washington, DC, 20402.

New Airman Testing System

Persons interested in an explanation and description of the new airman testing system should send for AC 61–93, "Replacing the Flight Test Guides with Practical Test Guides." Free from DOT Distribution, address above.

Citizen Brunet

I am a U.S. citizen, but I live in Canada and currently hold a Canadian commercial, multi-engine certificate and an IFR rating. What would be the process by which I could obtain equivalent U.S. qualifications so I can work as a pilot in the U.S.?

Marc Brunet
Ste. Julie, Quebec

Under FAR Part 61.75 you can be issued a U.S. commercial certificate with appropriate ratings on the basis of your Canadian license without further testing. However, the U.S. certificate would bear the limitation: "Not valid for the carriage of persons or property for compensation or hire or for agricultural aircraft operations." To obtain an unrestricted U.S. commercial pilot certificate, which you must have to engage in commercial operations in the U.S., you would have to complete successfully the appropriate written and practical tests. Previous flight experience may be applied toward the flight time requirements.

Avionics Mechanics

The article "Mechanics vs Repairman" in the July/August 1983 issue was interesting. The subtitle "General practitioners in an age of specialization" sounded encouraging but the text of the article didn't live up to my expectations because you failed to bring up an issue close to my heart. I feel the FAA needs to come to grips with the issue of licensing avionics mechanics.

The field of avionics maintenance is widely populated with technicians whose knowledge and experience goes far beyond the FAA definition of repairman and beyond the electrical and instrument portions of the airframe rating. These technicians fall into a licensing void, and I feel it is time to add an avionics rating to the mechanic license along with airframe and powerplant.

Jesse Ranney
San Francisco, CA

FAA has received a petition for rulemaking to add a new subpart to FAR Part 65, which would allow certification of avionics repairmen. Holders of this rating would be authorized to return aircraft to service after avionics repair (currently only an airframe rated mechanic or appropriately rated repair stations are allowed to do so). The petition was published in the September 27, 1982 *Federal Register* for the prescribed public comment period. The matter is still under consideration by FAA's Office of Airworthiness.

Border Charges?

I would like to warn U.S. pilots considering crossing with their aircraft into Canada this summer. I was there with my airplane a few months ago and just recently received a bill for a $5.00 "Transborder Fee." This is the first I have heard of charging U.S. pilots for crossing the border. We don't charge them for crossing over here. Have you—since you have done so many articles on flying over Canada and in Canada—heard of such a thing?

Name Withheld

A check with public affairs officials for Transport Canada assures us that there is no border crossing fee for U.S. pilots coming into Canada. Possibly your bill was a landing fee at the airport you used, or a special fee charged by Customs Officials for examining your aircraft during non-business hours.

Pilots wishing detailed information on flying into Canada may contact their local accident prevention specialist and request a free copy of the FAA GENERAL AVIATION NEWS reprint, "Alaskan Adventure."

Ultralight Safety Problems

I have been trying to obtain some information on ultralights. I figured since you people regulate them you must keep accident statistics and the like. Or are they some deep, dark secret? Where can I report what I think is a dangerous ultralight operation? Finally, what are the standards—if any—that safety programs are there?

Name withheld

Although FAA's Office of Flight Operations monitors ultralight activities, it does not keep accident statistics. The National Transportation Safety Board currently investigates fatal ultralight accidents or those non-fatal ones that involve a particular safety issue. Any statistics the Board has compiled in the past 18 months would be available from:

National Transportation Safety Board
Public Information Division
800 Independence Ave., S.W.
Washington, DC 20590

Additionally, both the Experimental Aircraft Association (EAA) and the AOPA Air Safety Foundation are accepting and compiling reports of accidents and incidents to develop a statistical base.

If you feel you have witnessed an unsafe ultralight operation, you may report it to your local FAA office, which will investigate if it appears that a Federal Aviation Regulations has been violated. You can also submit a written report to the National Aeronautics and Space Administration, Aviation Safety Reporting System, P.O. Box 189, NASA-Ames Research Center, Moffett Field, CA, 94035.

The Powered Ultralight Manufacturers Association (PUMA) has recently publish airworthiness standards which, along with the pilot competency and registration programs sponsored by AOPA Air Safety Foundation, have been recognized by FAA as national standards for ultralights. For further information on any of these items contact:

AOPA, Air Safety Foundation
421 Aviation Way
Frederick, MD 21701
(301) 695–2170

EAA
P.O. Box 229
Hales Corners, WI

PUMA
7535 Little River Turnpike
Annandale, VA 22003
(703) 642–5859

FAA GENERAL AVIATION NEWS welcomes comments from our readers. No anonymous letters will be used, but names will be withheld on request. Address: FAA GENERAL AVIATION NEWS, AFO-807, Washington, D.C. 20591.

Flare-ups

Six months ago I was diagnosed as having a duodenal ulcer, but with the proper medication and diet, I am fully recovered. My aviation medical is due soon and I was wondering if I needed to do anything special for it. I did not fly while on medication, and I'm hoping this will clear me fully to resume.

Name withheld

The Federal Air Surgeon's Office requires that if you have had an active ulcer within the last three months, or a bleeding ulcer in the last six, you must prove that it is healed in order to be medically certified. Evidence required includes a statement from your physician with X-ray confirmation. A list of the medications you require—if any—to control symptoms is also necessary. Simple anti-acids are generally acceptable for pilots.

Arthritis and Flying

I have just begun taking indomethacin for arthritis pain. What are the possible side effects of this medication on my flying? I haven't noticed any side effects as yet.

S. Kramer
St. Petersburg, FL

FAR 91.11(a)(3) states that no person may act as a crewmember of a civil aircraft "while using any drug that affects his faculties in any way contrary to safety." Indomethacin is an effective anti-inflammatory drug used commonly for arthritis sufferers. Even though you do not yet feel any affects, you could suffer any of the following during flight: dizziness, blurred vision, impaired hearing, and, rarely, hallucinations.

The Federal Air Surgeon recommends that you abstain from flying while taking *any* medication—if even you apparently experience no side effects. You should discuss your condition with your aviation medical examiner.

New Orleans Fair

I've seen a lot written about airspace regulations for flying to the Olympics, but what about the World's Fair in New Orleans? Is the FAA doing anything to assure safe air traffic operations there?

C. Frazier
Chicago, IL

The 1984 World's Fair has not been forgotten in the crush of summer activities. A number of traffic changes in the New Orleans area took place after the exposition began its run on May 12. Graphic and frequency information is contained in an FAA letter that has been sent to southwest pilots, and in a handout from Moissant Tower. Most general aviation traffic is expected at Lakefront Airport, which has extended its hours to midnight (previously 10 p.m.) from May 1 to December 1. The Fair will end on November 11.

INSTRUMENT CORNER

VASI and ILS

Is the visual approach slope indicator (VASI), which provides visual approach path guidance, part of the precision approach of an instrument landing system?

John F. Sacrey
Jewett City, CT

Negative, a VASI is not part of the instrument landing system. Where a VASI is located at a runway that has a precision approach, its glide path angle normally coincides with the ILS glide slope so that when the pilot transitions from instruments the same descent information will be presented visually. However, both can be used independently of each other.

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300 N ZEEB RD
ANN ARBOR MI 48106

FAMOUS FLIGHTS *(continued from page 3)*

know. Extensive research has been done trying to trace him but he seems to have vanished without a trace.

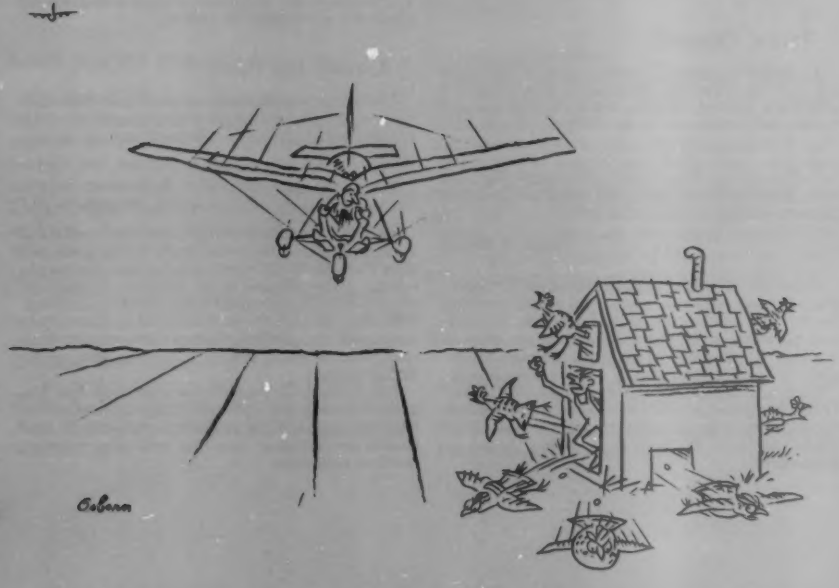
Meanwhile Carnes had promised Philadelphia a manned free flight and was determined to give it to them—only this time he would be the admired aeronaut as well as the promoter.

After modifying his heating system and changing the passenger platform to a triangular "scaffold," Carnes estimated that the worn and patched balloon could carry a total weight of 600 lbs. Because repairs took longer to make than he realized, the flight was rescheduled for the 19th of July. To avoid the expense of fencing the launch site, Carnes got permission to launch from within the walls of the city jail. Again he promised an armed guard who would shoot any unpaying customers.

As the cheering crowd watched, the balloon ascended at 6 p.m. that evening, but quickly disaster struck. At an altitude of 10-20 feet a gust of wind blew the balloon against a wall, causing the chain holding the platform to snap. Carnes fell safely back to earth as the balloon "rushed into the air with astonishing velocity." At an altitude of several hundred feet the balloon suddenly burst into flames, putting an end to Carnes' aviation career. Indeed, many witnesses believed that he had perished in the flaming chariot, and obituaries soon appeared. The unflappable Carnes took his wife and two step-children and fled to South Carolina, where he sought to recoup his finances in a career as lawyer and property owner.

Before his death in 1794 he relocated again, this time near Augusta, GA. Apparently he also married for a third time, to his step-daughter, who bore him two sons.

In aviation annals his name, like that of the youth Edward Warren, was soon forgotten. Historians tended to regard Peter Carnes as more of a carnival type of pitchman than a scientist. But in fact his achievement was extraordinary. Working alone and with the scantiest of technical knowledge he had succeeded where others gave up—the learned Philadelphians abandoned plans for a manned balloon of their own, and America had to wait another nine years before the Frenchman Blanchard brought a man-carrying balloon to these shores. But national pride was solaced by Carnes' ascent, which was reported in newspapers all over the land. The *Massachusetts Sentinal* stated proudly that thanks to this one man ". . . the opinion that philosophy will never spread her rays in the new world can have no foundation in truth." ■

A weekend warrior on a crack-of-dawn flight

Could upset folks who've been up all night.